



MT GAMBIER TRACK DESIGN ANALYSIS OF DRAWING 5135

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MT GAMBIER TRACK DESIGN ANALYSIS OF DRAWING 5135

INTRODUCTION

This report contains the results of an analysis of Mt Gambier greyhounds racing new track design 'Drawing 5135' as provided for discussion purposes by GRSA dated 15 January 2018.

TRACK SHAPE (PLAN VIEW)

There appears to be no transition between the straights and the bends. As a result greyhounds entering and leaving the bends will experience greater levels of horizontal jerk and the probability of collision will be greater than if a transition was implemented. It is recommended that a transition between both straights and the bends be considered.

TRACK GRADE (SECTIONAL VIEW)

In the revised design (Drawing 5135) the gradual introduction of the bend cross-falls occurs over a short distance where the maximum is 0.6% cross-fall change per meter at the bend into the back straight as highlighted in Figure 1. This will lead to a higher transient loading while the greyhounds navigate this bend. To reduce this, and other high transient loadings, the cross-fall of the track could be configured similarly to that of Figure 2 where transient loading is limited to approximately 0.03% per meter (the transition is applied over a distance of approximately 20 m). This configuration exposes the greyhounds to a more stable transient loading.

Figure 3 depicts a proposed detail where the grade along the straights is increased to 6%. This design is a compromise that provides less change between the bend and the straight grades whilst not being excessive.

Figure 4 depicts a proposed detail where the transition into the bend is applied before the bend and the transition out of the bend occurs on the bend and before the straight.

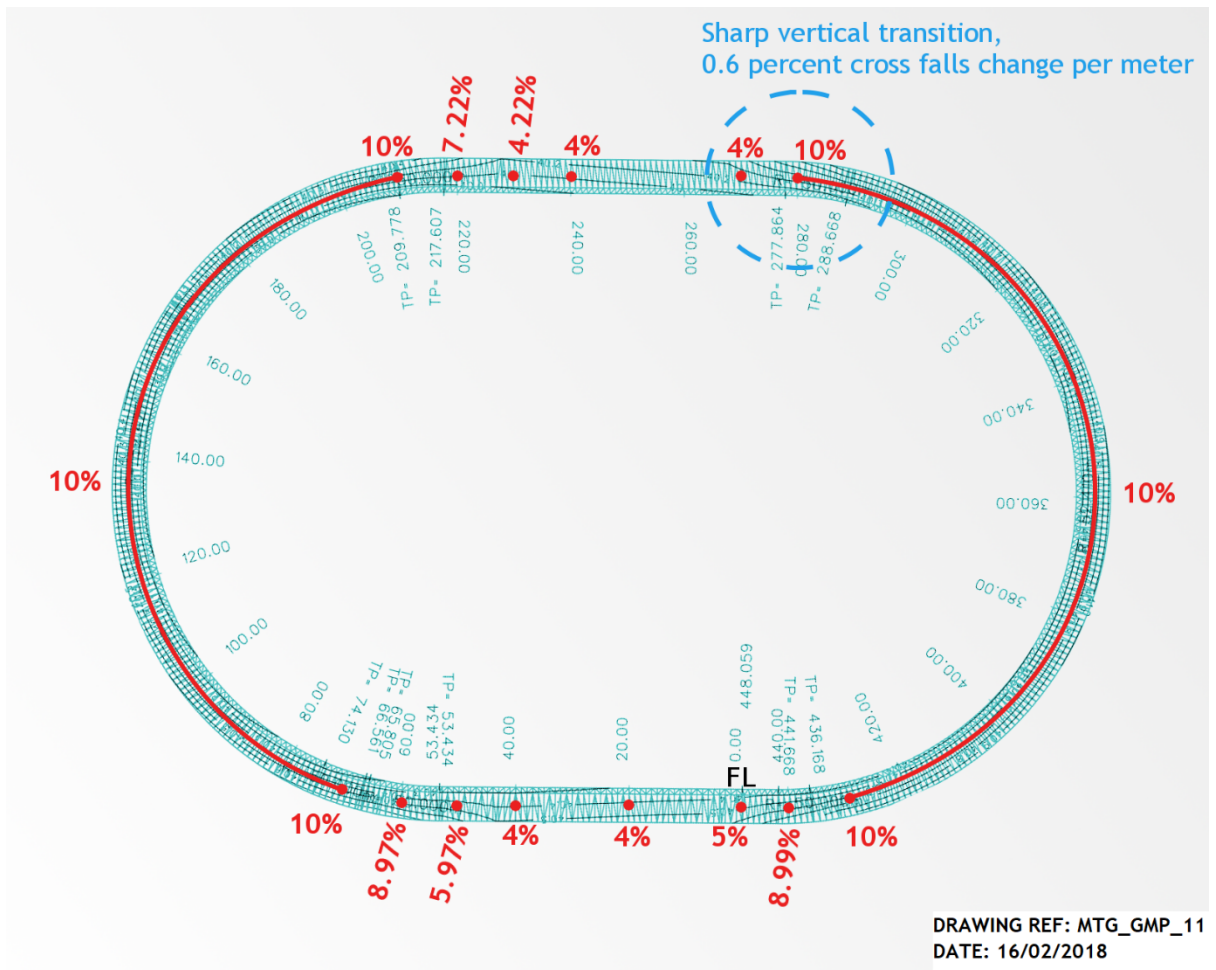


Figure 1 Mt Gambier track Drawing 5135
dated 15 January depicting cross-fall

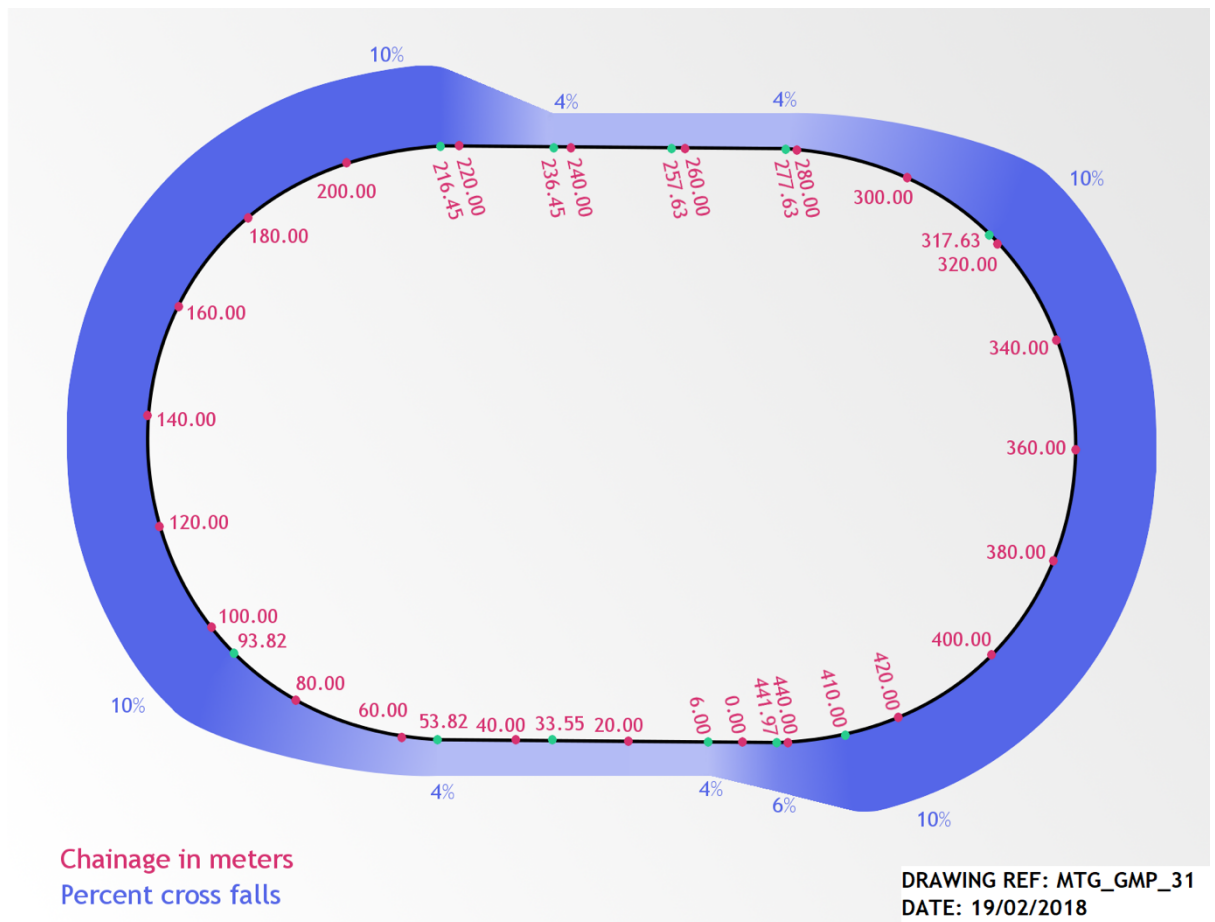


Figure 4 Mt Gambier track cross-fall using 4% grade on both straights and 10% on both bends, where the transition into the bend is applied before the bend and the transition out of the bend occurs on the bend and before the straight.